

pregnant. The dosage of radium is gauged by the age of the patient, and by the presence or absence of a tumor. In the young person without a demonstrable tumor and when it is desirable to continue menstruation, usually one application of 50 mg. of radium element for from four to six hours is used. In older persons in whom it is desirable to stop menstruation entirely, it has been found that an exposure of 50 mg. for from ten to twelve hours has brought about the desired results. In cases in which large dosage is used, menstruation is usually irregular for about two months and ceases entirely after the second or third month; following the lighter exposures, it becomes regular and normal in most instances in about two months. It is the custom in the Mayo Clinic not to repeat the treatment until an interval of three months has elapsed. If, after that time, menorrhagia continues, a second treatment is given, and with the exception of one case, the second treatment has been effective. In this instance menstruation ceased for one year, and then became profuse and the periods prolonged. It has been necessary to give second treatments in 10 instances in this series. In 8 instances a hysterectomy was done later, but only one of these 8 patients had been given a second radium treatment. Included in this series is one case of adenomyoma of the uterus, in which a microscopic diagnosis was made at the time of the exploratory incision, but the tumor entirely disappeared after one intra-uterine and four abdominal treatments. Reports have been received from 143 of the 175 patients and in 55 (38.5 per cent.) menstruation had ceased, not to return to the date of the report. In only 14 patients did menstruation cease immediately following the treatment. In 15 menstruation ceased for three months and returned, in 29 (20 per cent.) the menstruation became normal; in 42 it was reported as regular but somewhat profuse and in 30 it became profuse. Ninety-two patients reported their condition as improved, and 27 as not improved.

Cost of Cancer in Norway.—The various disasters to which death and disease give rise have an economic side, which occasionally makes itself strongly apparent. GADE (*Jour. Cancer Research*, 1919, iv, 203) has therefore tried to calculate the economic losses to Norway brought about by deaths from the cancerous diseases (carcinoma and sarcoma) in that country. These calculations are based on the one side upon the mortality statistics and on the other upon the valuation of Norwegian lives as computed by the director of the Norwegian Statistical State Bureau. As a result of this study it appears that there is an average yearly loss through death from cancer of about \$1,800,000 in this country where the population is scarcely 2,500,000 inhabitants. This amount represents only the direct loss of life-capital, and must be considerably increased if other sources of economic loss through the diseases in question are to be considered.

Renal Pain.—Kidney pain is one of the commonest complaints with which the urologist is confronted and it is of great interest to the gynecologist as well. The pain may be localized in the loin or abdomen or radiate widely, and frequently neither the Roentgen ray nor urine analysis will give any clue. In order to determine the causes of renal pain, HARRIS (*Med. Jour., Australia*, 1919, i, 41) has analyzed and studied 170 of his cases which presented this symptom and found that in

52, or 30 per cent. of the cases, the pain was caused by calculi in the kidney or ureter. In 18 cases renal tuberculosis was the cause of the pain while 32 patients had gross suppurative lesions of the kidney. This leaves 68 patients with renal pain but without any gross infection, in whom the nature of the lesion was not immediately apparent, but in the vast majority of these cases the pain was ultimately found to be due to some form of ureteral obstruction, most commonly a stricture of the ureter. Harris believes that the diagnosis can and should be made in the early stages of the disease by means of the cystoscope and the ureteral catheter, or even using pyelography if necessary, because if the diagnosis is made early in the disease, we can expect to cure the patient without sacrificing the kidney. Movable kidneys, on the other hand, should not be subjected to operation unless their causal connection with the existing pain can be unequivocally established. This is a very important statement as it has been proved many times that renal pain is seldom caused by mobility of the kidney and in many cases more harm than good is done by operative fixation of such kidneys.

Frequency of Adenomyoma Uteri.—Since the publication of the excellent monographs on the subject of adenomyoma of the uterus by Cullen, but few articles have been contributed to the literature. In view of the fact that his report contained only 73 (5.7 per cent.) adenomyomas in 1283 myomas of the uterus and since these figures had not been confirmed by an equally large series, it seemed opportune to MACCARTY and BLACKMAN (*Ann. Surg.*, 1919, lxi, 135) to add a report from the Mayo Clinic. Between 1906 and 1918, 3388 fibromyomatous uteri were removed in the clinic and of these 211 (6.43 per cent.) contained adenomyomas. In 5 cases the tumor was in the Fallopian tubes. The frequency is somewhat greater in this series than in that of Cullen, but the figures are so close that from 5 to 7 per cent. expresses it safely. The last 109 cases of the series were studied with reference to certain clinical features which might be intimately associated with the condition. Ninety-five patients were married: 41 per cent. gave histories of having had miscarriages, 50 per cent. suffered from profuse and prolonged uterine bleeding, and 31 per cent. from irregular bleeding. In 5.5 per cent. of the cases, epithelioma of the cervix or carcinoma of the body of the uterus was associated, neither of which conditions bore any apparent relationship to the adenomyomas. In 72 per cent. other pathologic pelvic conditions were associated, such as ovarian cysts, chronic or acute salpingitis, uterine or cervical polypi, cystic cervicitis or prolapsus uteri. In no case without the association of a malignant condition was the clinical diagnosis one of malignancy and in no case was a positive diagnosis of adenomyoma made previous to operation, but the clinical diagnosis was clothed in such terms as fibromyoma or pelvic tumor, both of which diagnoses show recognition of definite pathologic conditions of a neoplastic nature without attempting to specify in terms of detailed pathology.

Operation for the Production of Sterility.—It is occasionally important to sterilize a woman without removal of any of the organs and it has been found by experience that simple tying, section or even excision is inadequate, as the lumen of the tube readily becomes reestablished.